

SILICON NPN TRANSISTOR EPITAXIAL PLANAR TYPE (PCT PROCESS)

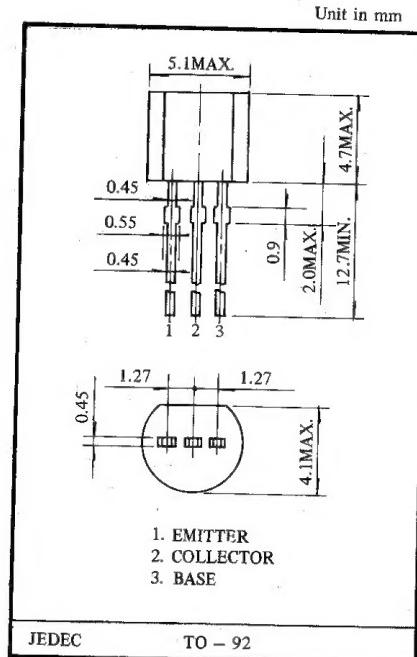
2SC 3203

APPLICATIONS

- Low Frequency Power Amplifiers
(B-Class Push-pull, $P_o = 1W$)
- General Purpose Switching Circuits

FEATURES

- Excellent h_{FE} vs. Collector Current Characteristics
- $P_c = 600\text{mW}$, $I_c = 800\text{mA}$ max.
- $V_{CE(sat)} = 0.5\text{V}$ max at $I_c = 500\text{mA}$, $I_B = 20\text{mA}$
- Complementary to the 2SA 1271



MAXIMUM RATINGS ($T_a = 25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector - Base Voltage	V_{CBO}	35	V
Collector - Emitter Voltage	V_{CEO}	30	V
Emitter - Base Voltage	V_{EBO}	5	V
Collector Current	I_c	800	mA

CHARACTERISTIC	SYMBOL	RATING	UNIT
Emitter Current	I_E	-800	mA
Collector Power Dissipation	P_c	600	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	-55~150	°C

ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut off Current	I_{CBO}	$V_{CB} = 35\text{V}$, $I_E = 0$	-	-	100	nA
Emitter Cut off Current	I_{EBO}	$V_{EB} = 5\text{V}$, $I_c = 0$	-	-	100	nA
Collector - Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_c = 10\text{mA}$	30	-	-	V
DC Current Gain	$h_{FE}(1)$	$V_{CE} = 1\text{V}$, $I_c = 100\text{mA}$	100	-	320	
	$h_{FE}(2)$	$V_{CE} = 1\text{V}$, $I_c = 700\text{mA}$	35	-	-	
Collector - Emitter Saturation Voltage	$V_{CE(sat)}$	$I_c = 500\text{mA}$, $I_B = 20\text{mA}$	-	-	0.5	V
Base - Emitter Voltage	V_{BE}	$V_{CE} = 1\text{V}$, $I_c = 10\text{mA}$	0.5	-	0.8	V
Transition Frequency	f_T	$V_{CE} = 5\text{V}$, $I_c = 10\text{mA}$	-	120	-	MHz
Output Capacitance	C_{ob}	$V_{CB} = 10\text{V}$, $f = 1\text{MHz}$	-	13	-	pF

NOTE: According to h_{FE} (1), Classified as follows

0	100 - 200	Y	160 - 320
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